

(19) World Intellectual Property  
Organization  
International Bureau



(43) International Publication Date  
18 August 2005 (18.08.2005)

PCT

(10) International Publication Number  
**WO 2005/075750 A3**

(51) International Patent Classification<sup>7</sup>: **E02D 27/34**

(21) International Application Number:  
PCT/KR2005/000333

(22) International Filing Date: 4 February 2005 (04.02.2005)

(25) Filing Language: Korean

(26) Publication Language: English

(30) Priority Data:  
10-2004-0007692 5 February 2004 (05.02.2004) KR  
10-2005-0009947 3 February 2005 (03.02.2005) KR

(71) Applicant (for all designated States except US): **CON-KEYNET CO., LTD.** [KR/KR]; 9F, Korea Veterans Association Bldg., 7-13, Sinchoen-Dong, Songpa-Gu, Seoul 138-792 (KR).

(72) Inventors; and

(75) Inventors/Applicants (for US only): **KIM, Kwang-Man** [KR/KR]; 22-1408, Jangmi Apt., 11, Sinchoen-Dong, Songpa-Gu, Seoul 138-240 (KR). **YUN, Sang-Mun** [KR/KR]; 101-905, Dongah-hangaram Apt., Pungnap-Dong, Songpa-Gu, Seoul 138-040 (KR).

(74) Agent: **KWON, Hyuk-Sung**; 12F, Seo-Jeon Bldg., 1330-9, Seocho-Dong, Seocho-Gu, Seoul 137-070 (KR).

(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

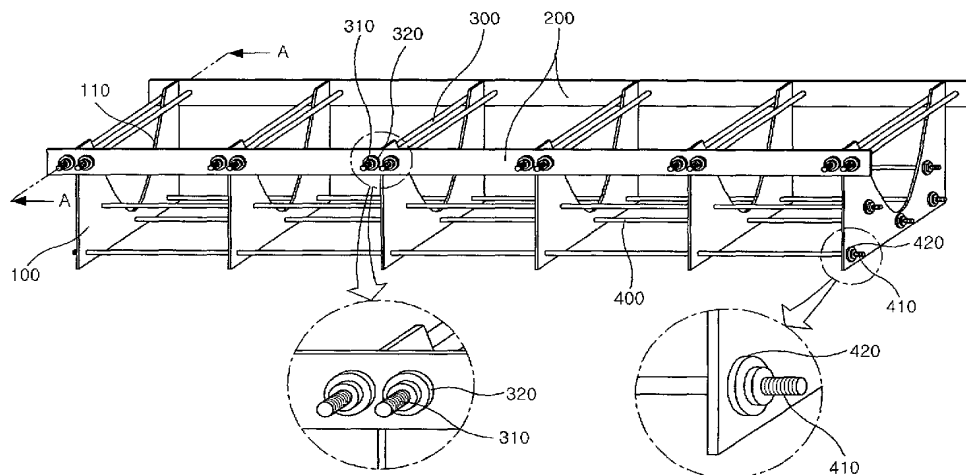
(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

— with international search report

[Continued on next page]

(54) Title: REINFORCEMENT OF FOUNDATION



(57) Abstract: The present invention relates to a reinforcement of foundation which comprises at least two base steel plates arranged to be upright with respect to the ground and shaped as a plate with a cutaway formed at a top portion thereof, a reinforced steel plate coupled to upper portions of both ends of the base steel plates, fastening steel rods placed to extend in a longitudinal direction of the base steel plate and coupled to the reinforced steel plate, and a connection steel rod bored sequentially through the base steel plates and coupled to the base steel plates. According to the present invention, huge concentrated load exerted on a foundation can be uniformly distributed, and thus, load transmitted from a pillar or column installed on the foundation can be stably supported. Further, the thickness of foundation can also be reduced as compared with the prior art, and thus, the excavation can be made shallow. Accordingly, the period and expense of construction can be reduced.

WO 2005/075750 A3



---

**(88) Date of publication of the international search report:**  
6 October 2005

*For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.*

## INTERNATIONAL SEARCH REPORT

International application No.  
PCT/KR2005/000333

**A. CLASSIFICATION OF SUBJECT MATTER****IPC7 E02D 27/34**

According to International Patent Classification (IPC) or to both national classification and IPC

**B. FIELDS SEARCHED**

Minimum documentation searched (classification system followed by classification symbols)

IPC7 E02D

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched  
KR, JP : IPC as above

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

**C. DOCUMENTS CONSIDERED TO BE RELEVANT**

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	D1 : US 5564235 A (Michael Butler) 15 OCTOBER 1996 See the whole document	1
A	D2 : US 5664377 A (Arthur Angelo) 9 SEPTEMBER 1997 See the whole document	1
A	D3 : JP H14-121747 A (SIN NIPPON SEITETS CORP.) 26 APRIL 2002 See the whole document	1
A	D4 : KR 20-341381 U (HILL ENGINEERING) 30 JANUARY 2004 See the whole document	1

☐ Further documents are listed in the continuation of Box C:

☒ See patent family annex.

\* Special categories of cited documents:

"A" document defining the general state of the art which is not considered to be of particular relevance

"E" earlier application or patent but published on or after the international filing date

"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of citation or other special reason (as specified)

"O" document referring to an oral disclosure, use, exhibition or other means

"P" document published prior to the international filing date but later than the priority date claimed

"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art

"&amp;" document member of the same patent family

Date of the actual completion of the international search

16 JUNE 2005 (16.06.2005)

Date of mailing of the international search report

**20 JUNE 2005 (20.06.2005)**

Name and mailing address of the ISA/KR



Korean Intellectual Property Office  
920 Dunsan-dong, Seo-gu, Daejeon 302-701,  
Republic of Korea

Facsimile No. 82-42-472-7140

Authorized officer

CHOI, Byoung Suk

Telephone No. 82-42-481-5797



**INTERNATIONAL SEARCH REPORT**

Information on patent family members

International application No.

PCT/KR2005/000333

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
D1	US5564235A	15. 10. 1996	AU3418995A1	22. 03. 1996
			US05564235	15. 10. 1996
			US5830378A	03. 11. 1998
			US6076320A	20. 06. 2000
			US6120723A	19. 09. 2000
			US6205725BA	27. 03. 2001
			US6367764B1	09. 04. 2002
			US6367764BA	09. 04. 2002
			US6550213B1	22. 04. 2003
			US6550213BA	22. 04. 2003
				W09606985A1
D2-D4	NONE			